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## **No. 9443**

**EL 2344**

**MOUNT FITTON**

**ANNUAL AND PARTIAL SURRENDER REPORTS FOR  
THE PERIOD 26/5/97 TO 25/5/2000**

Submitted by

Goldstream Mining NL  
2000

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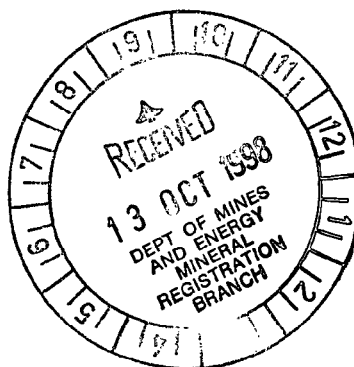
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AND RESOURCES SA**

**GOLDSTREAM MINING N.L.**  
**A.C.N. 009 129 560**

**Annual Report**  
**E.L. 2344 "MOUNT FITTON"**

**From 26 May 1997 to 25 May 1998**

**Author:** P. Greenhill  
**Date:** October 1998  
**Copies to:** MESA (2)  
GDM – Perth  
GDM – Adelaide  
Bonanza Gold Pty Ltd



**GDM Report No: 023**

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## **1. Summary:**

Exploration on E.L. 2344 during the first year of tenure has comprised geological reconnaissance, drainage geochemical sampling, geophysical interpretation and review of historic exploration data.

## **2. Introduction:**

Exploration Licence 2344 "Mt. Fitton" is centered 140 kilometres north east of the township of Leigh Creek, in the far North Flinders Ranges, and covers an area of 173 square kilometres.

The exploration licence occurs on Mt. Freeling and Moolawatna pastoral leasehold land.

## **3. Tenure:**

Exploration Licence 2344 was granted to Goldstream Mining and Bonanza Gold Pty. Ltd. ("Bonanza") on 26<sup>th</sup> May 1997 for a period of 12 months to explore for gold and base metals. The tenement has been renewed for 12 months and is now due to expire on the 25<sup>th</sup> May 1999.

## **4. Geology:**

Basement rocks in the Mt. Fitton region comprise Mesoproterozoic granitoids. These are overlain by Neoproterozoic cratonic and rifted-basin sediments, and minor mafic volcanics of the Adelaide Geosyncline. These rocks were extensively folded and metamorphosed up to lower amphibolite facies during the Delamerian Orogeny and episodes of further uplift occurred during the Mesozoic and Cainozoic. Mesozoic and locally derived Cainozoic sediments form much of the low-lying areas in the licence area.

## **5. Previous Exploration:**

The tenement surrounds the Mt. Fitton talc mines and consequently most previous exploration has been concentrated on talc. North Flinders Mines, Marathon Petroleum and Pan Australian Resources have conducted exploration for gold and base metals as part of larger regional programs within the Northern Flinders Ranges which included some of the current licence. A review of historic exploration data has been commenced and will be completed during the current term.

## **6. Current Exploration:**

### **6.1 Geochemical Sampling:**

#### **6.1.1 Drainage Sampling**

##### **-2mm Drainage BCL:**

A total of 24 two kilogram (-2mm) samples were collected and analysed for Au, Cu and Ag using a bulk cyanide leach (BCL) technique. Samples were collected at approximately 1 per square kilometre of drainage. Peak results include 0.3 ppb Au, 1.35 ppm Cu and 8.0 ppb Ag. All results are included as Appendix 1. Maps showing sample sites and copper and gold results are included as Plates 1 - 3.

##### **-80# Drainage:**

17 samples were collected at the same sites as the regional BCL drainage samples. Approximately 100g of -80# material was collected and assayed for Au, Cu, Zn, As, Ag, Sb, Te, Pb and Bi using conventional aqua regia/AAS for Au and ICP Mass Spectrometry for other elements. All results and locations are included as Appendix 2.

### **6.1.2. Rock-chip Sampling**

One rockchip sample was collected and analysed for Au, As, Cu, Ag, Bi, Pb, Sb, Te, and Zn. No significant values were returned (Appendix 3).

## **6.2 Geophysics:**

Magnetic and radiometric data for the area has been re-processed and images generated. Preliminary interpretations have been completed and further work is planned.

## **7. Future Exploration:**

Future exploration within E.L. 2344 will comprise:

- Completion of regional drainage sampling
- Rockchip sampling
- Infill drainage sampling
- Complete historic data review
- Geological reconnaissance and mapping

## **8. Conclusions:**

Further drainage regional sampling will be is planned in order to complete the first-pass geochemical program. Results of the drainage sampling along with a historical data review, lithological/alteration mapping and an assessment of geophysical data will then be used to determine the focus of further work on the tenement.

29°45'

139°30'

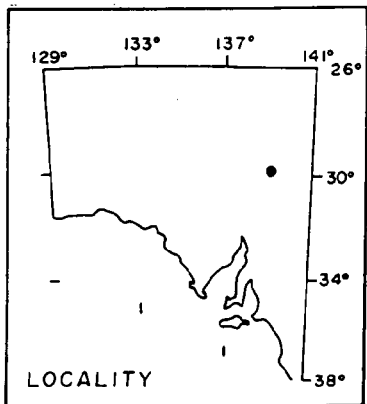
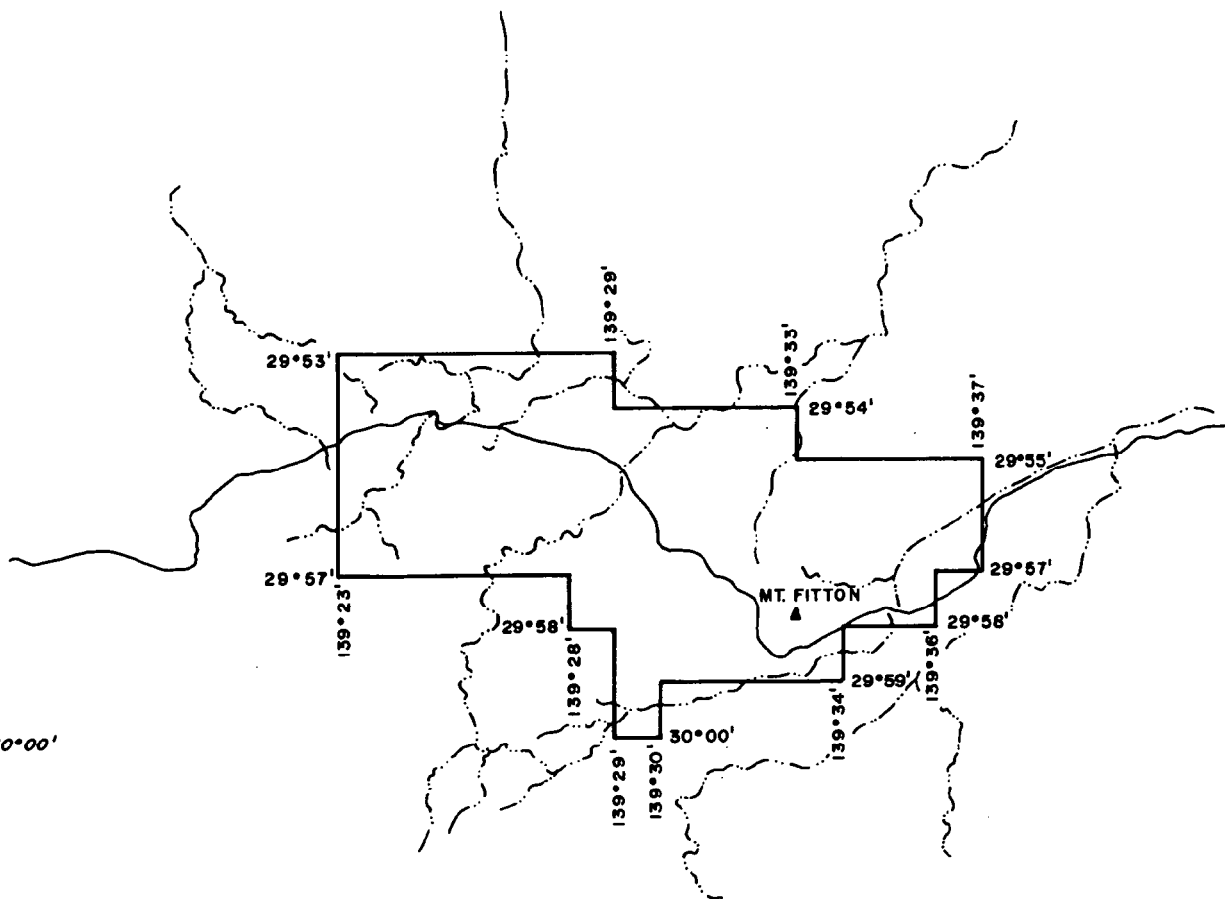


Fig. 1

Ref.: Marree SH5405 / Callabonna SH5406

**GOLDSTREAM MINING N.L.**

**EL 2344 - MT. FITTON**

Location plan

approx. area 172Km<sup>2</sup>

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DATE: MAR. 97

DRAWN: F.R.

REPT. No.:

SA 030

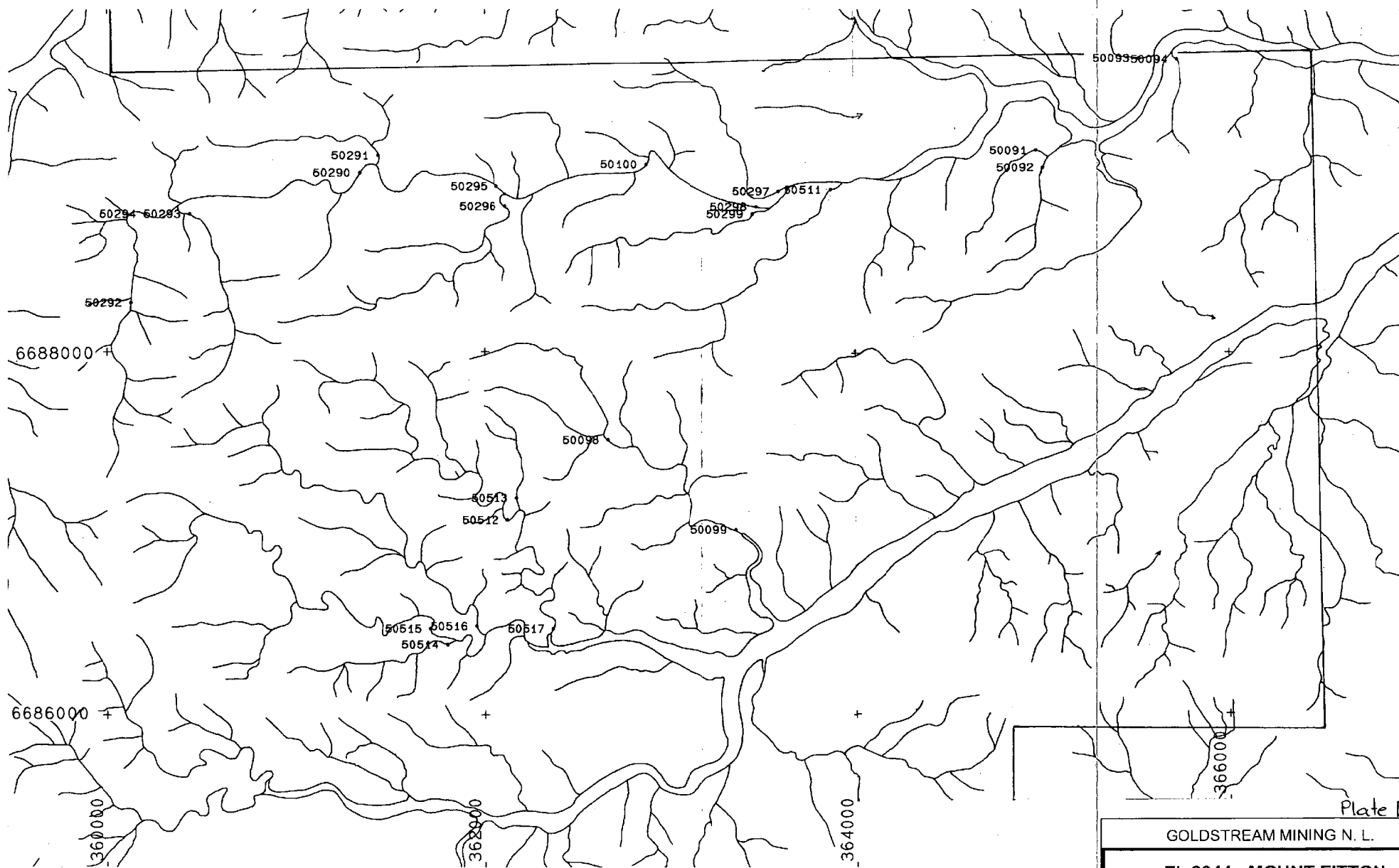


Plate 1

GOLDSTREAM MINING N. L.

**EL 2344 - MOUNT FITTON**

-2mm BCL Drainage Geochemistry  
Sample Locations

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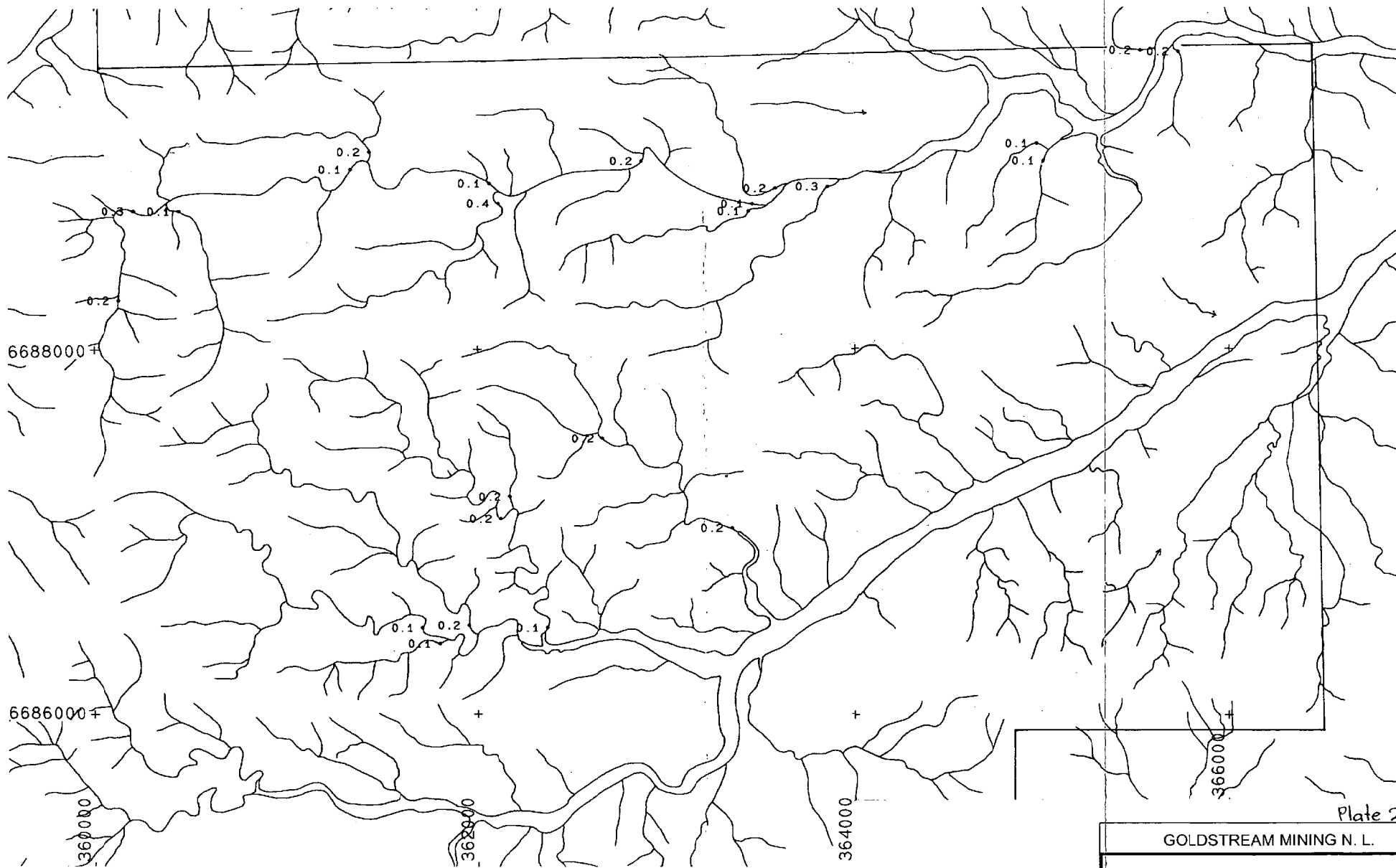


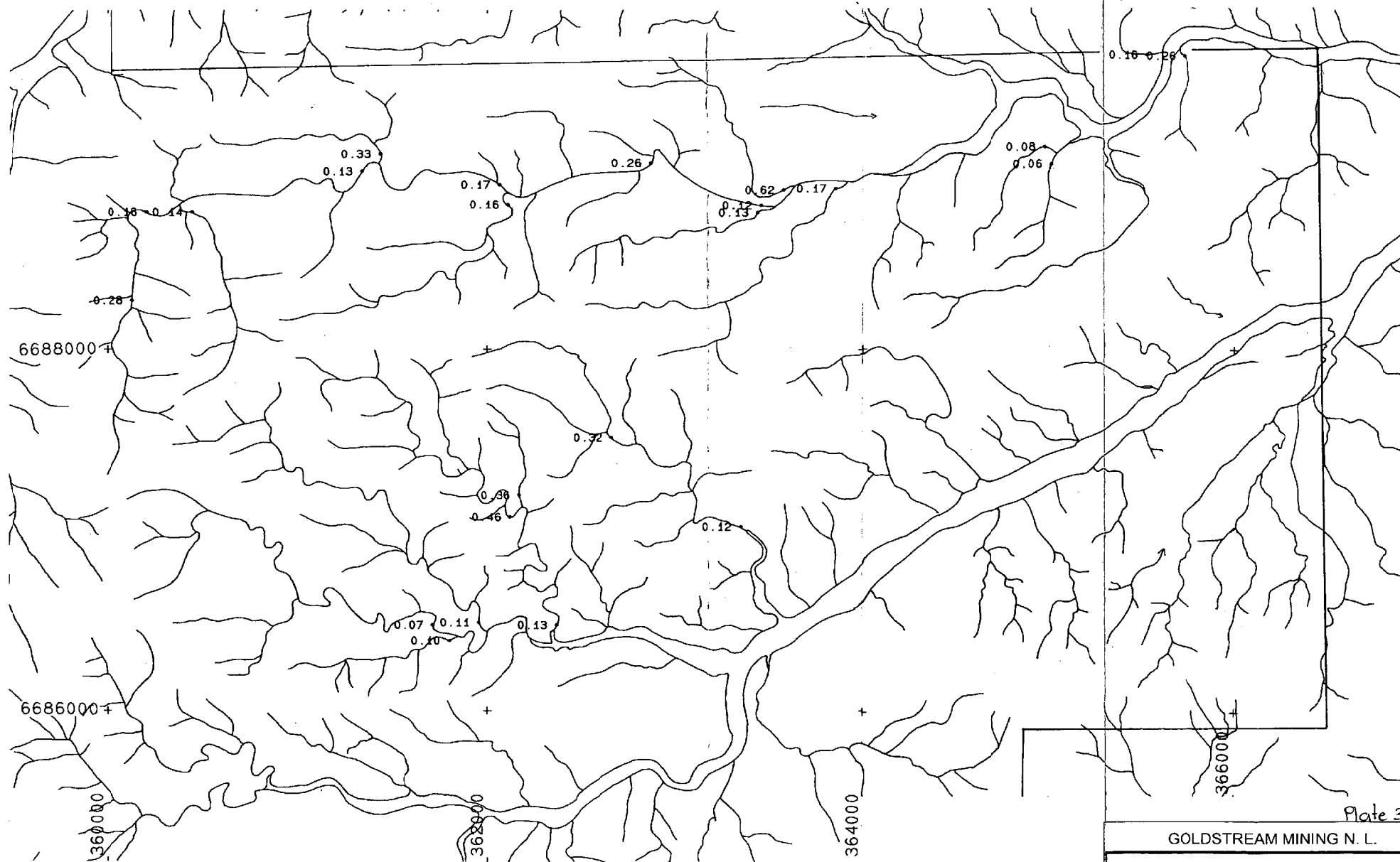
Plate 2

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**EL 2344 - MOUNT FITTON**

-2mm BCL Drainage Geochemistry  
Au (ppb)

SCALE: 1:20 000	DATE: OCT 98
DRAWN: F.R.	REPT. NO.: SA 193



GOLDSTREAM MINING N. L.

**EL 2344 - MOUNT FITTON**

-2mm BCL Drainage Geochemistry  
Cu (ppm)

SCALE: 1:20 000 DATE: OCT 98

DRAWN: F.R. REPT. NO.: SA 194

**Appendix 1**  
**-2mm BCL Drainage Data**

SAMPLE	EAST	NORTH	Au (ppb)	Cu (ppm)	Ag (ppb)
20017	361250	6679430	0.1	1.35	1.7
20018	350130	6690440	<0.1	0.44	4.5
20019	350420	6690190	<0.1	0.10	8.0
50091	365240	6689050	0.1	0.08	1.1
50092	365360	6689036	0.1	0.06	0.6
50093	365620	6689550	0.2	0.16	1.3
50094	365780	6689520	0.2	0.26	2.5
50290	361458	6688920	0.1	0.13	2.7
50291	361558	6688935	0.2	0.33	5.4
50292	360190	6687860	0.2	0.28	4.8
50293	360177	6688714	0.1	0.14	3.3
50294	360140	6688746	0.3	0.16	3.7
50295	362116	6688856	0.1	0.17	2.9
50296	362172	6688804	0.4	0.16	4.5
50297	363479	6688788	0.2	0.62	4.7
50298	363476	6688760	0.1	0.12	1.6
50299	363500	6688715	0.1	0.13	1.9
50511	363822	6688840	0.3	0.17	2.0
50512	362258	6687084	0.2	0.46	3.7
50513	362278	6687117	0.2	0.36	4.9
50514	361923	6686355	0.1	0.10	2.3
50515	361951	6686393	0.1	0.07	1.1
50516	362063	6686465	0.2	0.11	2.2
50517	362428	6686365	0.1	0.13	2.4

## Appendix 2

### -80# Drainage Data

SAMPLE	EAST	NORTH	Au (ppb)	As (ppm)	Cu (ppm)	Ag (ppb)	Bi (ppm)	Pb (ppm)	Sb (ppm)	Te (ppm)	Zn (ppm)
53290	361458	6688920	2	5.0	24	35	0.32	14	0.16	<0.05	90
53291	361558	6688935	2	4.5	19	30	0.31	11	0.14	0.05	75
53292	360190	6687860	1	3.0	18	25	0.28	10	0.12	0.05	60
53293	360177	6688714	1	4.0	20	25	0.27	11	0.14	0.05	70
53294	360140	6688746	2	6.5	19	30	0.30	12	0.12	<0.05	55
53295	362116	6688856	2	5.5	21	35	0.31	13	0.14	0.05	65
53296	362172	6688804	2	5.0	22	40	0.33	11	0.18	<0.05	65
53297	363479	6688788	1	6.5	19	25	0.31	11	0.12	0.05	60
53298	363476	6688760	1	5.5	19	20	0.29	10	0.12	0.05	60
53299	363500	6688715	2	3.5	19	25	0.29	11	0.16	<0.05	60
53511	363822	6688840	<1	6.0	22	15	0.36	9	0.16	<0.05	50
53512	362258	6687084	<1	4.5	23	20	0.35	10	0.14	0.05	65
53513	362278	6687117	<1	4.0	21	20	0.32	9	0.16	<0.05	60
53514	361923	6686355	1	4.0	20	20	0.31	9	0.18	0.05	55
53515	361951	6686393	1	3.5	20	40	0.32	9	0.16	<0.05	55
53516	362063	6686465	<1	4.0	21	25	0.34	8	0.16	<0.05	40
53517	362428	6686365	1	4.0	20	15	0.33	8	0.16	<0.05	40

## Appendix 3

### Rock-chip Data

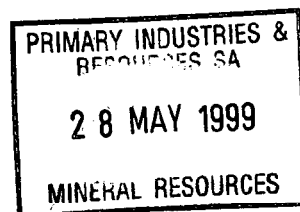
SAMPLE	EAST	NORTH	NOTES	Au (ppb)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
21212	350130	6690440	Mt. Fitton. Pyritic talc altered dolomitic siltstone	1	<5	886.3	6.2	7.1



**GOLDSTREAM MINING N.L.**  
**A.C.N. 009 129 560**

**Annual Report**  
**E.L. 2344 "MOUNT FITTON" J/V**  
**From 26 May 1998 to 25 May 1999**

**Author:** H. Parry  
**Date:** May 1999  
**Copies to:** PIRSA (2)  
GDM – Perth  
GDM – Adelaide  
Bonanza Gold Pty Ltd



**GDM Report No: 051**

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Figure 1: Tenement Location Plan

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Appendix 1: Rockchip Geochemical Data

## **1. Summary:**

Due to exploration efforts being focused on neighboring tenements ELs 2173 and 1966, work has been restricted to geological reconnaissance on EL 2344. Previous exploration results are being assessed as part of a larger regional study and will determine future work programs within the tenement.

## **2. Introduction:**

Exploration Licence 2344 "Mt. Fitton" is centered 140 kilometres northeast of the township of Leigh Creek, in the far North Flinders Ranges, and covers an area of 173 square kilometres (Figure 1).

The exploration licence occurs on Mt. Freeling and Moolawatna pastoral leasehold land.

## **3. Tenure:**

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## **4. Geology:**

Basement rocks in the Mt. Fitton region comprise Mesoproterozoic granitoids. These are overlain by Neoproterozoic cratonic and rifted-basin sediments, and minor mafic volcanics of the Adelaide Geosyncline. These rocks were extensively folded and metamorphosed up to lower amphibolite facies during the Delamerian Orogeny and episodes of further uplift occurred during the Mesozoic and Cainozoic. Mesozoic and locally derived Cainozoic sediments form much of the low-lying areas in the licence area.

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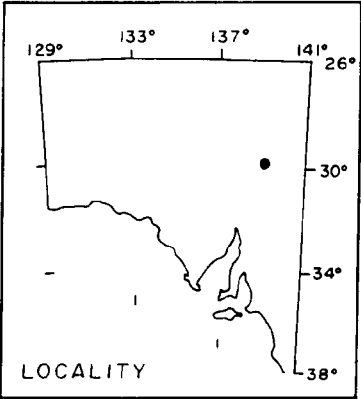
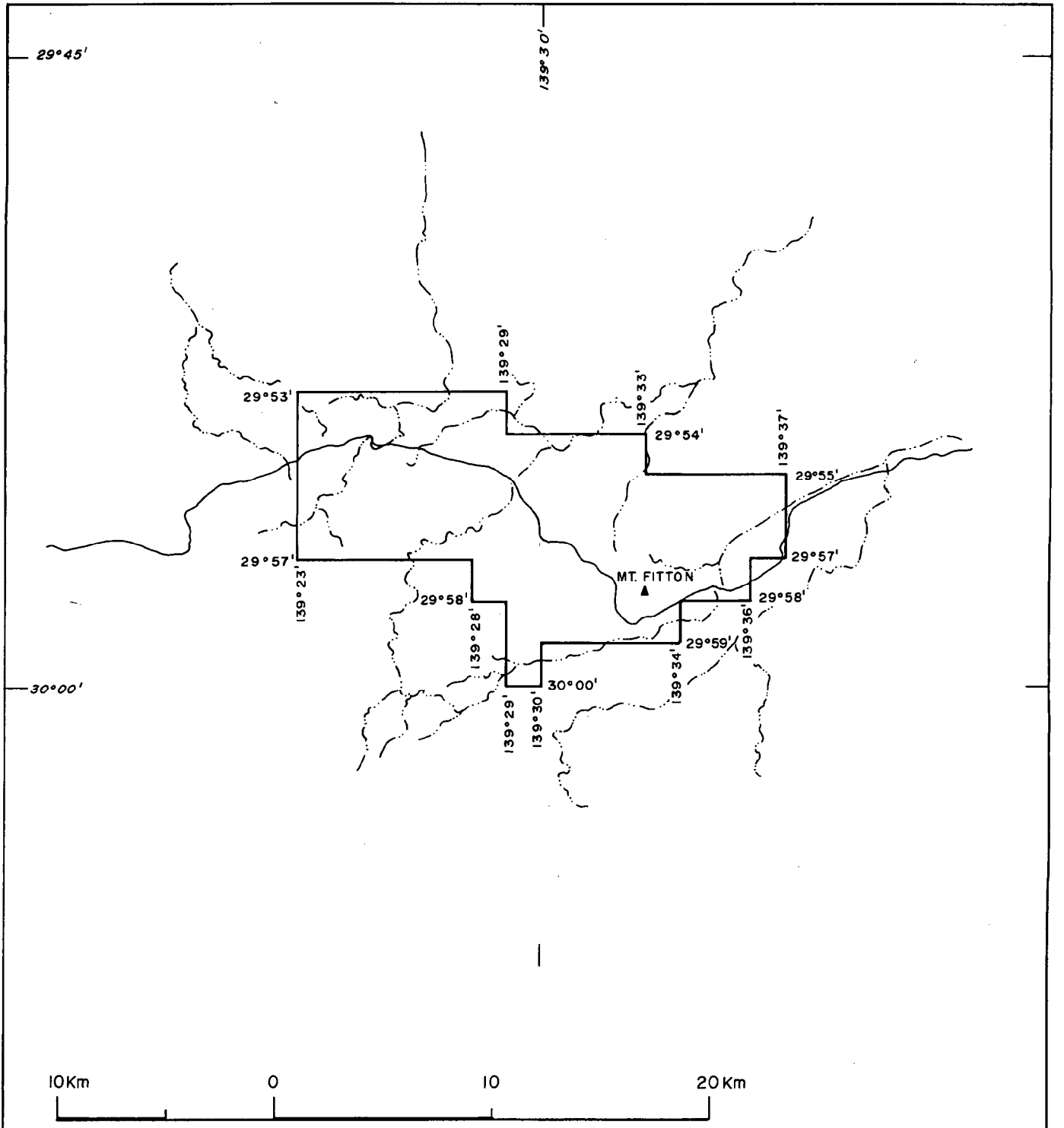
## **6. Current Exploration:**

### **6.1 Rock-chip Sampling**

Two rockchip samples were collected and analysed for Au, As, Cu, Ag, Bi, Pb, Sb, Te, and Zn. No significant values were returned (Appendix 1).

## **7. Conclusions:**

While much of EL 2344 is covered by Adelaidean sediments and thought to be only marginally prospective for gold and base metals, some potential for economic mineralisation remains along the basement unconformity. A focus on untested geochemical and geophysical anomalies will be followed up during the current year of tenure prior to a decision being made on future work programs.



Ref.: Marree SH5405 / Callabonna SH5406

GOLDSTREAM MINING N.L.		
EL 2344 - MT. FITTON		
Location plan		
approx. area 172Km <sup>2</sup>		FIG.1
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Appendix 1  
Rockchip Geochemical Data

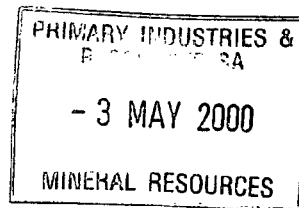
Appendix 1. Rockchip Geochemical Data.

SAMPLE	EAST	NORTH	Au	As	Cu	Ag	Bi	Pb	Sb	Te	Zn
99304	360400	6685000	3	15	20	0.155	13.5	4	1.08	<0.05	<5
99305	360200	6685000	<1	58	112	0.24	4.7	3	0.98	<0.05	55

**GOLDSTREAM MINING N.L.**  
**A.C.N. 009 129 560**

**Annual Report**  
**EL 2344 "MT FITTON" J/V**  
**For period 26 May 1999 to 25 May 2000**

**Author:** P. Greenhill  
**Date:** May 2000  
**Copies to:** PIRSA (2)  
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GDM – Adelaide  
Bonanza Gold Ltd



**GDM Report No: 074**

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Figure 1: Tenement Location Plan

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Plate 1: -40# Drainage Geochemistry – Sample Locations

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Appendix 1: -40# Drainage Geochemical Data



## **1. Summary:**

A review of previous exploration around the historic Billy Springs talc workings showed that its potential to host epithermal gold mineralisation had not been assessed. A drainage program was conducted around the workings and failed to return any anomalous results. Goldstream has elected to withdraw from the tenement and transfer its interest to Bonanza Gold Pty Ltd.

## **2. Introduction:**

Exploration Licence 2344 "Mt. Fitton" is centered 140 kilometres northeast of the township of Leigh Creek, in the far North Flinders Ranges, and covers an area of 173 square kilometres (Figure 1).

The exploration licence occurs on Mt. Freeling and Moolawatna pastoral leasehold land.

## **3. Tenure:**

Exploration Licence 2344 was granted to Goldstream Mining and Bonanza Gold Pty. Ltd. ("Bonanza") on 26<sup>th</sup> May 1997 for a period of 12 months to explore for gold and base metals. The tenement has been renewed for 12 months and is now due to expire on the 25<sup>th</sup> May 2000. Goldstream has elected to withdraw from the joint venture and transfer its 50% interest in the tenement to Bonanza.

## **4. Geology:**

Basement rocks in the Mt. Fitton region comprise Mesoproterozoic granitoids. These are overlain by Neoproterozoic cratonic and rifted-basin sediments, and minor mafic volcanics of the Adelaide Geosyncline. These rocks were extensively folded and metamorphosed up to lower amphibolite facies during the Delamerian Orogeny and episodes of further uplift occurred during the Mesozoic and Cainozoic. Mesozoic and locally derived Cainozoic sediments form much of the low-lying areas in the licence area.

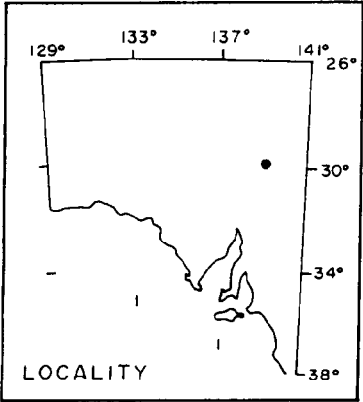
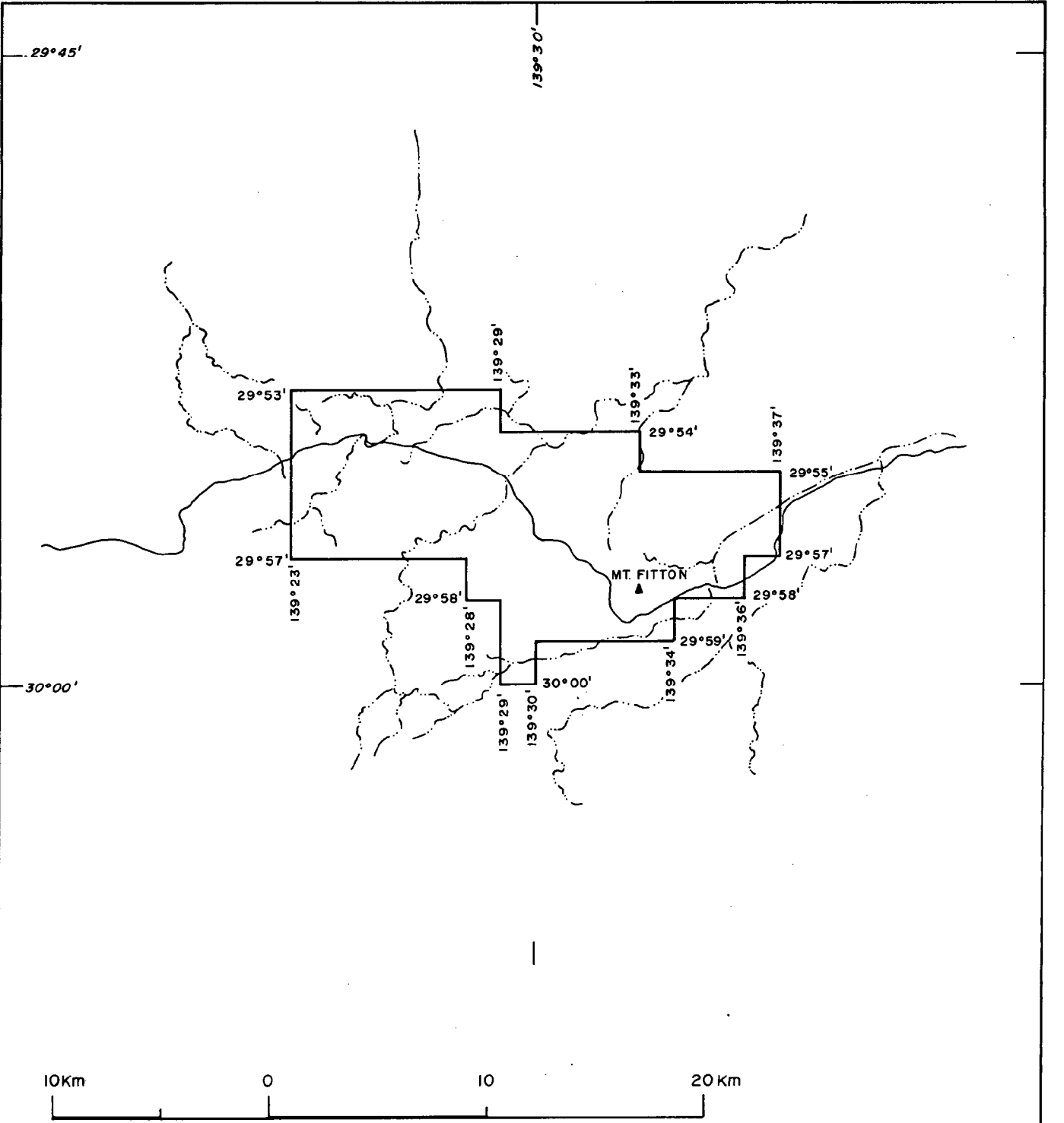
## **5. Current Exploration:**

### **5.1 Drainage Sampling**

Fifteen -40# drainage samples were collected from creeks draining the Billy Springs Pb/Zn Cu and Billy Springs Talc workings, and analysed for Au, As, Cu, Ag, Pb and Zn. Peak results included 1ppb Au, 0.6ppm Ag, 15ppm As, 21ppm Cu, 12ppm Pb and 155ppm Zn. Sample data is included with this report as Appendix 1 and Plate 1.

## **6. Conclusions:**

Drainage sampling around historic workings at Billy Springs has failed to identify any anomalous drainages that warrant follow up work. Goldstream Mining has elected to withdraw from the joint venture and transfer its 50% equity to Bonanza Gold Pty Ltd.



Ref.: Marree SH5405 / Callabonna SH5406

GOLDSTREAM MINING N.L.

EL 2344 - MT. FITTON

Location plan

approx. area 172Km<sup>2</sup>

FIG. 1

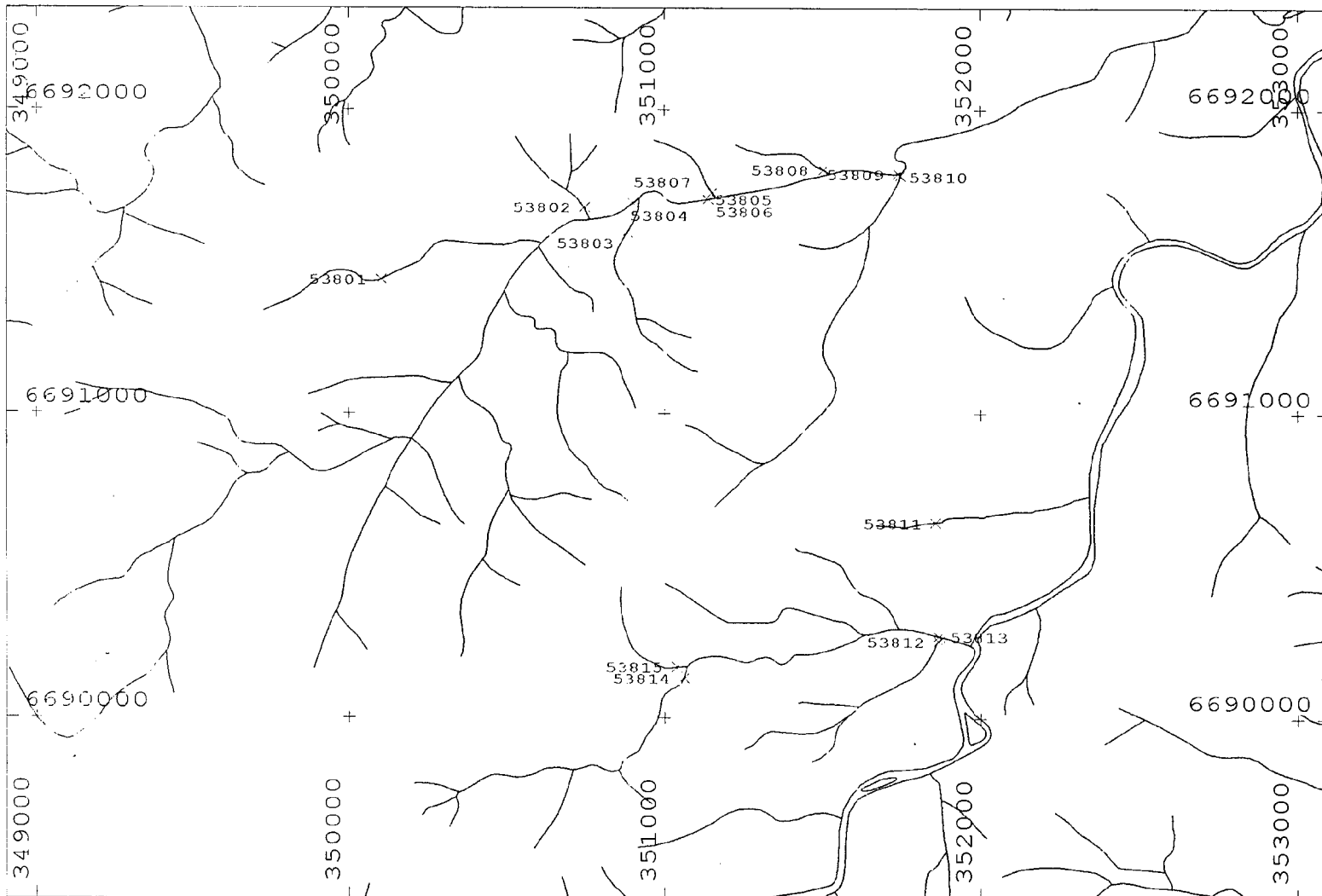
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REPT. No.: 074

SA 030




 <b>GOLDSTREAM MINING N.L.</b>	Scale 1:20000	DATE	SHEET 1 of 1	<b>E.L. 2344 Mt Fitton</b> <b>Billy Springs Prospect</b> <b>-40# Drainage Sample Locations</b>	Drawn By: HWP
		REF No. 1	FILE		
		BILLY SPRING			

PLATE 1  
GOM Rep

Appendix 1  
-40# Drainage Geochemical Data

SAMPLE	EAST	NORTH	EL	PROSPECT	DATE	NOTES	Au(ppb)	As(ppm)	Cu(ppm)	Ag(ppb)	Pb(ppm)	Zn(ppm)
53801	350290	6691490	2344	Billy Springs	17/3/2000		1	4	10	0.5	7	29
53802	350450	6691540	2344	Billy Springs	17/3/2000		<1	9	21	<0.5	6	54
53803	350710	6691480	2344	Billy Springs	17/3/2000		1	3	19	0.5	12	155
53804	350820	6691600	2344	Billy Springs	17/3/2000		<1	6	5	<0.5	<2	12
53805	351010	6691540	2344	Billy Springs	17/3/2000		<1	5	5	<0.5	4	15
53806	351010	6691540	2344	Billy Springs	17/3/2000	Duplicate of 53805	<1	5	5	<0.5	4	15
53807	351020	6691560	2344	Billy Springs	17/3/2000		<1	3	3	<0.5	<2	11
53808	351220	6691590	2344	Billy Springs	17/3/2000		<1	6	8	<0.5	3	20
53809	351690	6691560	2344	Billy Springs	17/3/2000		<1	15	12	<0.5	7	33
53810	351700	6691560	2344	Billy Springs	17/3/2000		1	11	8	<0.5	4	26
53811	351760	6690600	2344	Billy Springs	17/3/2000		<1	7	8	<0.5	3	19
53812	351810	6690250	2344	Billy Springs	17/3/2000		<1	4	7	<0.5	7	19
53813	351800	6690260	2344	Billy Springs	17/3/2000		<1	7	11	<0.5	5	21
53814	351040	6690040	2344	Billy Springs	17/3/2000		1	3	7	<0.5	5	26
53815	351050	6690120	2344	Billy Springs	17/3/2000		1	2	4	0.6	8	13